

Copyright (C) 2022 mirage335
See the end of the file for license conditions.
See license.txt for webClient license conditions.

Web browser containment framework.

Automatically forces FireFox and Chromium to use a "HOME" folder neighboring the shell script itself, launching a virtual machine if necessary.

Usage

```
./_firefox  
./_firefox_editHome_multitasking  
./_chromium
```

Will either find binaries for firefox/chromium/etc installed (eg. /usr/bin/firefox) or if available will use binaries installed in overriding locations (eg. ~/core/installations/firefox/firefox, "\$scriptAbsoluteFolder"/_local/setups/firefox/firefox/firefox).

FireFox will not report "profile in use" errors when run under non-persistent/user modes, which use temporary directories. However, FireFox still cannot be run multiple times under persistent/edit modes if any other FireFox profile is active on the desktop.

Infrequently edited FireFox profiles will cause a "Refresh Firefox" prompt. Add boolean 'browser.disableResetPrompt=true' under 'about:config' to disable.

Fork

Usually, bookmark/password export, and sync services, are sufficient. Usually git repository tracking of entire web browser profile history is not necessary or desirable.

To fork nevertheless...

EITHER use 'ubiquitous_bash' fork script and copy '_prog', '_local/ops.sh', '_lib/desktop' from '_webClient' (preferable) OR download 'webClient' and change git remote origin push/pull URI.

Remove "_local/h" ".gitignore" exclusion to track web browser profile under git repository.

Design

Ubiquitous Bash FakeHome virtualization redirects the apparent home directory as seen by FireFox, Chromium, etc.

If appropriate native binaries are not available, the "nixexevm" virtual machine will be launched. Either a "_local/vm.img" file, or a "\$HOME"/core/nixexevm/ubiquitous_bash.sh script, containing a Debian operating system.

All functionality is defined by "_prog/core.sh".

All functionality is demonstrated by this worst-case internal command.
_userQemu "\$scriptAbsoluteLocation" _userFakeHome "\$scriptAbsoluteLocation" "_firefox_command" -no-remote "\$@"

"_userQemu" - Directive to launch a Virtual Machine, with directory sharing and file translated parameters.

"\$scriptAbsoluteLocation" - Absolute path of the "ubiquitous_bash.sh" script itself.

"_userFakeHome" - Directive to launch with "\$HOME" variable pointed at a temporary directory named "h_" .

"_firefox_command" - FireFox binary found on the system.

"-no-remote" - Parameter for FireFox itself. Given the "\$HOME"/.mozilla directory is temporary, there is no need for process sharing.

Future Work

*) NOT developing MSW/Cygwin host support. MSW is increasingly less reliable and less secure (due to cloud integration, extensive built-in networking services, advertising incentives, etc) in every way than integrated browser synchronization services. Multiple isolated browser profiles and synchronization of browser profiles by Git/SSH are simply not useful under MSW. MSW is also not usually justified in Virtual Machines, not having any unique compatibility, having a highly inconvenient UI, and possibly imposing too much cost per instance, too much disk consumption, and far too many updates.

Reference

<https://www.omgubuntu.co.uk/2021/01/chromium-sync-google-api-removed>

<https://blog.mozilla.org/services/2020/09/15/the-future-of-sync/>

'A lot of folks expected it to be a Backup service. The good news is, now it is a backup service. Sync is more reliable now. We use a distributed database to store your data securely, so we no longer lose databases (or your data echos). There's a lot of benefit for us as well. We were able to rewrite the service in Rust, a more efficient programming language that lets us run on less machines.'

Copyright

This file is part of webClient.

webClient is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

webClient is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with webClient. If not, see <<http://www.gnu.org/licenses/>>.